Name: HW124 Rhombus Exploration

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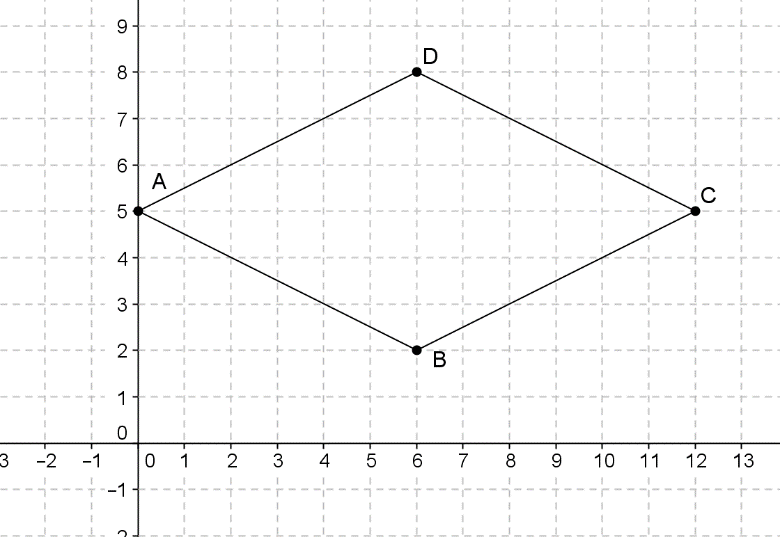
Geometry, Period

Due Date: Mon, 23 Mar 2015

**Geometry**

**Homework**

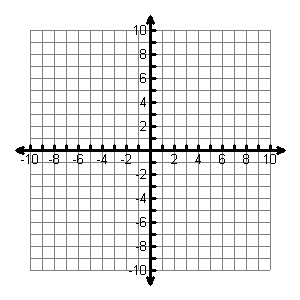


1. Use the figure to the right to answer the following questions. 
2. What shape is this?

* 1. Prove opposite sides are parallel
  2. Prove opposite sides are congruent

1. Draw in the diagonals and label everything that you know about the diagonals for this shape.
2. What do you know about the angles formed by the intersection of the diagonals?



1. Quadrilateral EMIL is a rectangle.
   1. If LM = 2x + 26, find the value of x.
   2. What is m∠ELY?
2. Write the equations of 3 lines that will create a rectangle based on the equation of the line:

1. A rhombus has 25-cm sides, and one diagonal is 14 cm long. How long is the other diagonal? (Draw a picture and use your quadrilateral sheet!)

1. Two similar rhombi have a similarity ratio of 2:7. The diagonals of the smaller rhombus have lengths 18 and 24. How long are the sides of the larger rhombus?   
   (Draw a picture and use your quadrilateral sheet!)

1. Suppose that *PQRS* is a rhombus, with and a 60-degree angle at *Q*. How long are the diagonals *PR* and *QS*?   
   (Draw a picture and use your quadrilateral sheet!)